

## CLAIMS

What is claimed is:

- Sub A<sup>1</sup>  
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1. An isolated functional protein capable of interacting with the cytoplasmic domain of CD40 and/or other receptors of the TNF receptor superfamily such as CD30 and TNF receptor II wherein the protein has no homology to TRAF-proteins.
  2. An isolated functional protein according to claim 1 comprising an amino acid sequence with 70-100% homology to the amino acid sequence depicted in SEQ ID NO. 2.
  - Sub A<sup>2</sup>  
10 3. An isolated functional protein according to claim 1 comprising an amino acid sequence with 70-100% homology to the amino acid sequence depicted in SEQ ID NO. 4.
  4. An isolated functional protein according to claim 1 comprising an amino acid sequence with 70-100% homology to the amino acid sequence depicted in SEQ ID NO. 6.
  5. An isolated functional protein according to claim 1 comprising an amino acid sequence with 70-100% homology to the amino acids 54-362 of SEQ ID NO. 2.
  - Sub A<sup>3</sup>  
15 6. An isolated functional protein according to claim 5 comprising an amino acid sequence with 70-100% homology to the amino acids 274-362 of SEQ ID NO. 2.
  7. An isolated functional protein according to claim 1 comprising an amino acid sequence with 70-100% homology to the amino acids 2-245 of SEQ ID NO.6.
  8. A nucleic acid sequence encoding a protein according to any of the claims 1-7.
  9. A nucleic acid sequence according to claim 8 with 70-100% homology to the DNA sequence depicted in SEQ ID NO. 1.
  - Sub A<sup>4</sup>  
20 10. A nucleic acid sequence according to claim 8 with 70-100% homology to the DNA sequence depicted in SEQ ID NO.3.

11. A nucleic sequence according to claim 8 with 70-100% homology to the DNA sequence depicted in SEQ ID NO. 5.

12. Use of an isolated functional protein and/or a functional fragment thereof according to any of the claims 1-7 as a medicament.

13. Use of an isolated functional protein according to any of the claims 1-7 and/or a functional fragment thereof to treat TRAF-related, CD40-related, NF-kB related and/or Jun (kinase)-related diseases.

14. The use according to claim 13 in which the disease is atherosclerosis, arthritis, multiple sclerosis, systemic lupus erythematosus and/or graft rejection.

15. The use of an isolated functional protein according to any of the claims 1-7 and/or a functional fragment thereof to sensitize tumor cells to anti-tumor treatments.

16. The use of an isolated functional protein according to any of the claims 1-7 and/or a functional fragment thereof to screen for compounds that interfere with the interaction of said protein(s) with other protein components of the TRAF, CD40 or NF-kB related pathway.

17. A method for screening compounds comprising the use of a protein according to claim 16.

18. A compound isolated with the method according to claim 17.

19. A pharmaceutical composition comprising one or more isolated functional proteins according to any of the claims 1-7 and/or functional fragments thereof and a pharmaceutical acceptable carrier material.

20. A pharmaceutical composition comprising one or more compounds according to claim 18 and a pharmaceutical acceptable carrier material.

21. . Use of a protein according to any of the claims 1-7 and/or additional fragments thereof  
for the manufacture of a pharmaceutical composition to treat TRAF, CD40 and/or NF-kB  
related diseases.

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